

# STRATEGY RESEARCH PROJECT

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## THE EUPHRATES-TIGRIS BASIN AND THE SOUTHEASTERN ANATOLIA PROJECT: IS ARMED CONFLICT IN THE OFFING?

BY

COMMANDER LAURIE A. CASON  
United States Navy

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COMMANDER LAURIE A. CASON  
Department of the Navy

Professor S.G. Hajjar  
Project Advisor

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U.S. Army War College  
CARLISLE BARRACKS, PENNSYLVANIA 17013

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## ABSTRACT

AUTHOR: Laurie A. Cason

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Turkey, Syria and Iraq, the main riparians of the Euphrates and Tigris Rivers, have unilaterally created agricultural irrigation schemes and other water utilization projects along these two rivers for centuries. Turkey is currently engaged in ambitious development of both rivers under a broad plan known as the Southeastern Anatolia Project or Guneydogu Anadolu Projesi (GAP). Syria and Iraq are highly dependent upon these two rivers for drinking water, irrigation, industrial uses, and hydroelectricity, and view this project with strong interest. Given the historic and complex religious, ethnic, territorial and hydro-political relationships between these three countries, Turkey's continuing development of the rivers is certain to increase tensions. This paper will examine the hypothesis that Turkey's Southeastern Anatolia Project will reduce water flow to the downstream riparians so drastically as to foment armed conflict in the region within the next ten years. Implications for U.S. national security strategy will also be discussed.



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## **THE EUPHRATES-TIGRIS BASIN AND THE SOUTHEASTERN ANATOLIA PROJECT: IS ARMED CONFLICT IN THE OFFING?**

We made from water every living thing.

—The Holy Koran (XXI, verse 30)

Much has been written about scarce water resources in the arid Middle East, particularly concerning transboundary rivers and the friction that often arises as countries vie for their perceived sovereign rights of usage. Turkey, Syria and Iraq, the main riparians to the Euphrates and Tigris Rivers, have unilaterally created agricultural irrigation schemes and other water utilization projects along these two rivers for centuries. Turkey is currently engaged in ambitious development of both rivers under a broad plan known as the Southeastern Anatolia Project or Guneydogu Anadolu Projesi (GAP). Syria and Iraq are highly dependent upon these two rivers for drinking water, irrigation, industrial uses, and hydroelectricity, and view this project with strong interest. Given the historic and complex religious, ethnic, territorial and hydro-political relationships between these three countries, Turkey's continuing development of the rivers is certain to increase tensions. This paper will examine the hypothesis that Turkey's Southeastern Anatolia Project will reduce water flow to the downstream riparians so drastically as to foment armed conflict in the basin region within the next ten years. Implications for U.S. national security strategy will also be discussed.

### **U.S. INTEREST**

The United States has had a significant strategic interest in Turkey since World War II, actively pursuing a strong economic and military relationship with the pro-western, democratic Turkish government. Further, as a member of the North Atlantic Treaty Organization (NATO) since February 1952, Turkey's strategic importance as the southeastern bulwark of Europe and NATO cannot be overstated. Certainly Turkey plays a critical role in regional stability in the Middle East, and while leaders in Ankara view the Southeastern Anatolia Project as a matter of national pride and salvation, longstanding hydro-political conflicts between Turkey, Syria and Iraq actually highlight GAP development as a focal point for regional unrest and instability. A brief overview of Turkey's relationships with Syria and Iraq will facilitate an understanding of the hydro-political complexities in the region.

## HYDRO-POLITICS

Since the founding of the Turkish Republic in 1923, Turkey has consistently aspired to look west and identify with western security powers. It is partially within the context of its strong ties to the west, contrasted with its fundamentally differing Islamic culture, character and values that the internal dichotomous nature of Turkish politics is unveiled, along with the divisiveness between Turkey, Syria and Iraq. In 1938, in an attempt to bring Turkey into the war on the side of the allies at the onset of World War II, France, then the League of Nations mandate power, gave the northwestern Syrian town of Alexandretta and the surrounding area to the Turks. Turkey claims territorial rights to the town, which it has renamed Iskenderun, while Syria has never relinquished ownership and the area remains in dispute today. Syria also condemns Turkey's military cooperation with Israel as a "satanic alliance" against the Arab world and complains of Turkey limiting water flow along the Euphrates River.<sup>1</sup> Indeed, Turkey did disrupt the flow of the Euphrates for one month as it filled the reservoir behind the Ataturk Dam, but provided advanced warning and increased water flow prior to the evolution. As Turkey continues with development plans of the Euphrates, it has kept its commitment to provide Syria a minimum of 500 cubic meters per second at the point where the Euphrates enters Syria, an agreement originally established in 1987.<sup>2</sup> Syria's longstanding support of terrorist actions of the Kurdish Workers Party (PKK), the southeastern Anatolia Kurdish population engaged in armed action against Turkish security forces, is perhaps the greatest point of contention between the two countries. Turkey's relationship with Iraq is slightly less antagonistic and economic ties between the two countries have been historically steadfast.<sup>3</sup> In the 1946 Treaty of Friendship and Neighborly Relations, Turkey and Iraq agreed to share water data and usage intent for both the Tigris and Euphrates rivers.<sup>4</sup> The treaty is theoretically still in effect although no committee meetings have ever occurred. Turkey and Iraq have also enjoyed essentially a water in exchange for oil relationship, with a 1973 agreement in which oil from Iraq was delivered through a pipeline running to a Mediterranean terminus in Turkey, although this has been temporarily disrupted as a result of the economic sanctions imposed on Iraq following the Gulf War in 1991.<sup>5</sup> Similarly, the weakened condition of Iraq's military and economy since the war, along with the uncertainty of Saddam Hussein's future, add further imbalance to the tri-country relationships. Compared to the potentially negative impact the GAP plan poses to water flow along the Euphrates and

both downstream riparians, the plan poses less impact to the Tigris River and Iraq, in that a large portion of the river's water source enters the river from Iranian territorial streams in the Zagros Mountains and only 38 percent of the annual mainstream flow enters from Turkey.<sup>6</sup> It is also important to note that Turkey and Syria sided with the allied forces against Iraq during the Gulf War, contributing yet another element of tension between the three countries.

Regional tension has continued to increase since the 1960's when both Turkey and Syria began large-scale development plans for the Euphrates River in particular. An attempt to create renewed dialogue began with tripartite talks in 1965 and while no accord was reached, each country identified its maximum annual demands from the Euphrates River (Turkey 18 bcm, Syria 13 bcm, Iraq 14 bcm), a combined amount exceeding average low-flow river capacity by 15 bcm.<sup>7</sup> Other plans proposed at various times have suggested the sharing of water resources based on the needs of each country. This type of plan is particularly challenging in that identifying "need" is contingent upon a complete and accurate assessment of usage data by each country – data which is held in strict confidentiality as it is often used as a powerful bargaining chip in political negotiations. Another important fact to keep in mind is that Turkey's position as the upstream riparian, a water rich country with many more water resources than the Tigris and Euphrates, gives Turkey a distinct position of power, an advantage that will be further discussed later. Thus one begins to realize the profound complexities encountered when confronting hydro-politics in the Euphrates-Tigris Rivers basin.

## GEOGRAPHY

It is useful to develop an understanding of the geography of the Tigris and Euphrates Rivers before discussing the details and characteristics of the GAP. Both rivers originate in the snow-rich mountains of Turkey, flow south through Syria and Iraq, and drain through the Shatt al-Arab waterway into the Persian Gulf (see Figure 1). The basin area results from the catchment and drainage of the two rivers, found primarily in the lower plains areas of Syria and Iraq. This basin region is historically considered the cradle of civilization, or Mesopotamia, "the Land Between the Rivers."<sup>8</sup> With a total length of 2,700 kilometers (1,674 miles), the Euphrates River is the longest in southwest Asia.<sup>9</sup> It forms in southeastern Turkey, flows past the southern Turkish town of Birecik and enters Syria at Karkamis, then enters Iraqi territory near Qusaybah. The Tigris River, second longest in southwest Asia at 1,840 kilometers (1,141 miles), originates in

eastern Turkey near Lake Hazar, forms the border between Syria and Turkey for 32 kilometers (20 miles), then flows along the Zagros mountains in Iraq, receiving water from the Greater Zab, Lesser Zab, Adhaim and Diyala tributaries, joins the Euphrates near Qurna in southern Iraq, and flows to the Gulf.<sup>10</sup>



**FIGURE 1. The Middle East**

#### THE RIVERS AND WATER FLOW

Basin percentage within each country, and hydrological data concerning origin and flow along the Tigris and Euphrates Rivers has been widely researched with results varying depending on the sources of data. The rivers are described as "exotic" meaning they derive their waters from outside of the region through which they flow. Further, they characteristically display drastic fluctuations in their annual flow – high in April and May when the mountain snows melt and low in late Summer/early Fall. In fact, "the flow in the Euphrates can be as high as twenty-eight times its low flow and in the Tigris almost eighty times its low flow."<sup>11</sup> The Euphrates drains a basin 444,000 sq mi in area, of which 28 percent lies in Turkey, 17 percent in Syria, 40 percent in Iraq, and 15 percent in Saudi Arabia.<sup>12</sup> Yet, another expert suggests that 40 percent lies in Turkey, 25 percent

in Syria, and 35 percent in Iraq.<sup>13</sup> Twelve percent of the Tigris basin has been estimated to lie in Turkey, 0.2 percent in Syria, 54 percent in Iraq, with the remainder in Iran, while others have determined that 20 percent in Turkey and 78 percent in Iraq are more accurate figures.<sup>14</sup> Regarding average annual water flow and origin; disparate figures have also been produced. It is estimated that Turkey contributes 88 percent of annual flow to the Euphrates and Syria contributes 12 percent.<sup>15</sup> Others have estimated the percentage of the Euphrates flow originating in Turkey may be as high as 98 percent.<sup>16</sup> At three chosen sites along the Euphrates flow was estimated to be 26,990 mcm/yr at Birecik, Turkey; 28,400 mcm/yr at Tabqa, Syria; 27,230 mcm/yr at Hit, Iraq.<sup>17</sup> Along the Tigris "the volume of the river also varies widely from time to time at any given place."<sup>18</sup> The minimum recorded flow at Baghdad is 158 mcm/s, the mean is 1,236 mcm/s, and the maximum is 13,000 mcm/s.<sup>19</sup> Some experts have indicated that the two rivers combined produce an annual flow of 70-74 bcm/yr, with 32 bcm from the Euphrates and 42 bcm from the Tigris.<sup>20</sup> Others claim the total flow may exceed 80 bcm/yr, with 33 bcm and 47 bcm from the Euphrates and Tigris respectively.<sup>21</sup> Flow data, sources and uses of the two rivers can be found at Tables 1 and 2.

**TABLE 1: Sources and Uses of the Euphrates River (mcm per year)**<sup>22</sup>

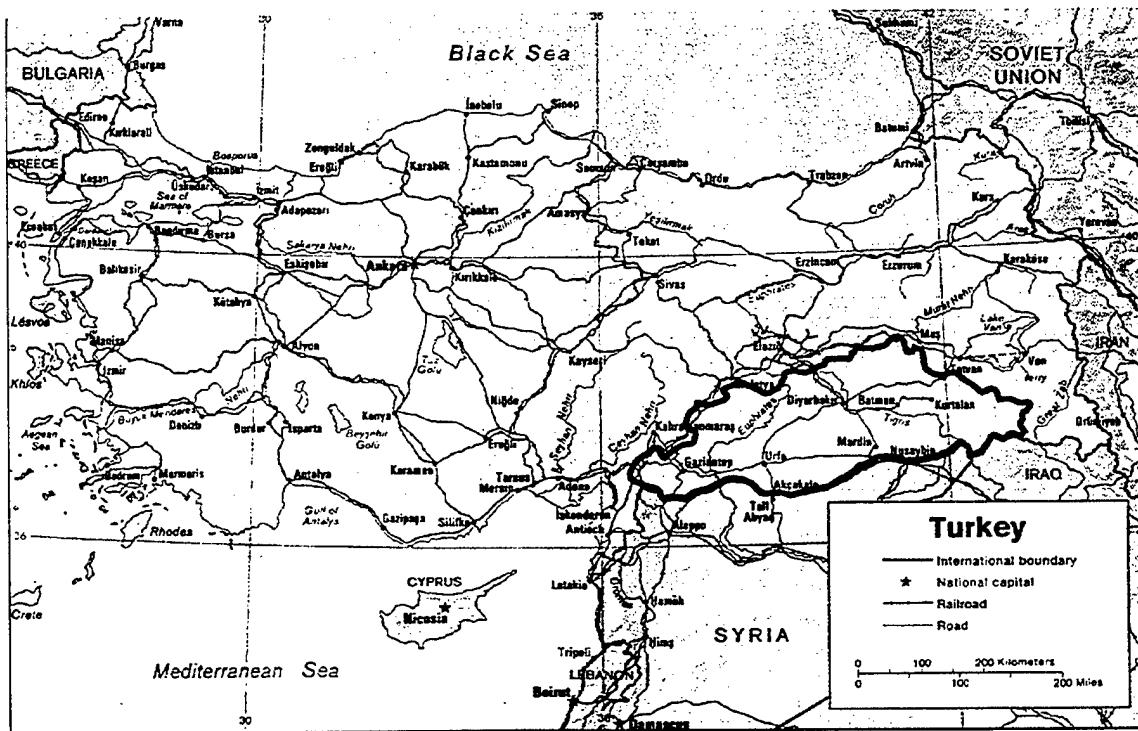
Natural Flow	Observed at Hit, Iraq	29,800
	Removed in Turkey (pre-GAP)	820
	Removed in Syria (pre-Tabqa)	2,100
	Natural flow at Hit	32,720
Pre-Keban Dam (before 1974)	Flow in Turkey	30,670
	Removed in Turkey	(820)
	Entering Syria	29,850
	Added in Syria	2,050
	Removed in Syria	(2,100)
	Entering Iraq	29,800
	Added in Iraq	0
	Iraqi irrigation	(17,000)
	Iraqi return flow	4,000
	To Shatt al-Arab	16,800
Full Use Scenario (circa 2040)	Flow in Turkey	30,670
	Removed in Turkey	(21,600)
	Entering Syria	9,070
	Removed in Syria	(11,995)
	Return flow and Tributaries (Turkey, Syria)	9,484
	Entering Iraq	6,559
	Removed in Iraq	(17,000)
	Return flow in Iraq	4,000
	Deficit to Shatt al-Arab	(6,441)

**TABLE 2: Sources and Uses of the Tigris River (mcm per year)<sup>23</sup>**

	<b>Pre-Anatolian Development Project</b>	<b>Post 2000 AD</b>	<b>Natural Flow</b>
Flow from Turkey	18,500	18,500	18,500
Removed in Turkey	0	6,700	
Entering Iraq	18,500	11,800	
Inflows to Mosul	2,000	2,000	2,000
Greater Zab	13,100	13,100	13,100
Lesser Zab	7,200	7,200	7,200
Other	2,200	2,200	2,200
Sub-Total	43,000	36,300	43,000
Reservoir Evaporation	0	(4,000)	
Irrigation (to Fatha)	(4,200)	(4,200)	
Return Flow	1,100	1,100	
Adhaim	800	800	800
Irrigation (to Baghdad)	(14,000)	(14,000)	
Return Flow	3,600	3,600	
Domestic Use	(1,200)	(1,900)	
Diyala River	5,400	5,400	5,400
Irrigation	(5,100)	(5,100)	
Return Flow	1,300	1,600	
Sub-Total	30,700	19,600	49,200
Reservoir Evaporation	0	900	
Irrigation to Tokuf	(8,600)	(8,600)	
Return Flow	2,200	2,200	
		(to outfall drain)	
Total Shatt al-Arab	24,300	14,100	49,200

## THE GAP VISION

Utilizing its geographic position as upstream riparian with control of the headwaters of both the Tigris and Euphrates Rivers, and driven by its need for expanded hydroelectric production and crop irrigation, Turkey has placed heightened emphasis on construction projects creating dams and reservoirs along the rivers since 1960. The greatest of these endeavors, the \$32 billion dollar Southeast Anatolia Project will, upon completion, be comprised of 22 dams, 19 hydroelectric plants, and an irrigation network for 1.7 million hectares (4.2 million acres) of land schemes of various scales (20 percent of the irrigable land in Turkey) in 13 different locations. The expected generation of 22 billion kilowatt hours annually, with an installed capacity of 7476 megawatts is double the hydroelectric capacity available in 1984.<sup>24</sup> The region of Turkey encompassing the GAP includes the six provinces of Adiyaman, Diyarbakir, Gaziantep, Mardin, Sanliurfa or Urfa, and Siirt (see Figure 2).



**FIGURE 2. Turkey and Outline of the GAP Area**

The Southeastern Anatolia Project is a huge undertaking for Turkey and is a matter of national pride. In addition to the irrigation and hydropower plans, all the related social and economic sectors including industry, transportation, mining, telecommunications, health, education, tourism, and infrastructure are expected to flourish. The high potential generated by the GAP, both in agriculture and industry, is expected to increase the income level of the people fivefold and generate employment opportunities for 3.8 million living in a region whose total population is projected to be over 9 million in 2005.<sup>25</sup> Lorenz and Erickson provide superb insight to the Turkish vision of the GAP as a symbol of hope for the future of the nation.

The development of the GAP has universal political appeal within Turkey and represents a source of great national pride – it is financed without the benefit of international financial organizations or the World Bank. This self-sufficiency has led to a heightened sense of national pride, a focus for the industrialization of the nation, significant influence in the region, and a great degree of independence of action and control over the project. The GAP is intended to bring industrialization and growth to a poor region of the country. It sends electricity to population centers and adds to the agricultural export base of Turkey. Not the least in

importance, it provides hope for the large Kurdish minority in that area. There is something in this vision for almost every citizen of Turkey.<sup>26</sup>

Planned distribution of work along each river includes 7 projects, 14 dams, and one million hectares of irrigated land along the Euphrates, 6 projects, 8 dams, and 700,000 hectares of irrigated land along the Tigris.<sup>27</sup> The Turkish government in Ankara expects the GAP to provide economic growth and stability to the Anatolia region, thereby drawing large numbers of its citizens from over-populated cities in western Turkey to the southeast for work and resettlement, along with a concurrent resolution to the Kurdish problem in the region. It should be noted, however, that economic and technical factors have slowed GAP progress and "though initially expected to be completed by 1994, the full project is now expected to take until the year 2030 or even 2040 to become operational."<sup>28</sup>

#### **SCARCITY, SECURITY AND CONFLICT**

Unquestionably, the GAP is a matter of monolithic importance to the government and citizens of Turkey and development can be expected to continue, albeit at a reduced pace, regardless of international or regional opinion. The issue at hand involves water flow along the Tigris and Euphrates Rivers as it is affected by Turkey's continuing development of the GAP, and whether or not the impact will be a reduction in water flow of such magnitude that downstream riparians Syria and Iraq will employ forceful military action to restore the flow of water to pre-GAP levels. Naff has estimated that "when the Turkish projects are complete, the flow of the Euphrates River to Syria could be reduced by up to 40 percent, and to Iraq by up to 80 percent."<sup>29</sup> Compounding the issue is the manner in which Syria uses water, largely inefficient and wasteful in nature, a fact that does not escape the view of Turkey and Iraq.<sup>30</sup> In the Middle East as a whole, the population is expected to double over the next 25 years, and within the Tigris-Euphrates basin in particular, "population growth and projected demands on the rivers will eventually exceed capacity."<sup>31</sup>

Thus, when assessing the potential for conflict, a determination of scarcity and the resulting influence on security is critical to the overall analysis. Beginning with scarcity, need is the basic foundation, as "at the most basic level, actual scarcity may be said to exist when real demand (i.e., need) exceeds real supply."<sup>32</sup> There are six basic causes for water scarcity and they include "climate variations (principally drought); degradation of water quality by human activity at a rate faster than the source can be

renewed; depletion of a source, such as an aquifer, at a rate faster than it can be replenished; out-of-basin diversion or storage of surface water; redistribution for other uses or to another place; and consumption.”<sup>33</sup> When a nation perceives its water supply as scarce for any reason, a climate of uncertainty and instability develops, leading nations to view access to water as a matter of national security. Inextricably tied to scarcity is security, the definition of which at the most basic level includes “being secure from harm or annihilation” and with regard to water, security of the nation-state is the common context under which this definition is understood.<sup>34</sup> So, do the actions of the upstream riparian, assuming these actions negatively impact the availability of water and consequently the security of the downstream riparian, necessarily evoke armed conflict? The response cannot be satisfied with a simple yes or no answer. The nature of security is complex and “a resource issue like water scarcity is a constant underlying security factor that could act as a trigger for conflict; but precisely how and why it would trigger warfare rather than another reaction is not clearly known, as water could in the same circumstances act as a catalyst for negotiations.”<sup>35</sup> History is replete with conflict over shared water resources, and within the Tigris-Euphrates basin in 1975 Syria and Iraq nearly came to armed conflict over water in the Euphrates River. Turkey and Syria were filling the Keban and the Al-Thawrah Dams respectively during a time of severe drought conditions, and water flow to Iraq was drastically reduced. Both Syria and Iraq massed troops and tanks along the Syrian/Iraqi border and it was only through Saudi Arabian and Russian mediation that armed conflict was avoided. In contrast, when asked to use water as a weapon against Iraq during the Gulf War by delimiting flow, Turkey refused.<sup>36</sup> Conflict is a highly complex matter and where conflict over water is concerned, there are always causal links to other factors such as politics, economics, religion, or ethnicity.<sup>37</sup> Therefore, potentiality for armed conflict over Turkey’s GAP plan must be examined under further concepts.

## **INTERNATIONAL LAW**

Given the long history and complexity of hydro-political conflict in the Tigris-Euphrates basin, international water law may be the only means through which lasting agreement on sharing of water can be established. However, international water law is relatively new and difficult for countries to agree upon. Four basic legal principles are usually raised by countries when competing for water resources: absolute sovereignty, absolute or territorial integrity, community of co-riparian states and limited territorial

sovereignty.<sup>38</sup> Absolute sovereignty (the Harmon Doctrine), often the claim of the upstream riparian, permits a country to use as much water as desired, in any manner chosen, providing it does so within its own territorial boundaries. Absolute integrity is the opposite of absolute sovereignty, with the principle stipulating that the natural flow of a river must remain clear and unimpeded, and that the downstream riparians have rights to full water-flow usage. Co-riparian communalism establishes that rivers will be viewed as essentially absent territorial boundaries and that all state riparians will share the rivers by cooperative agreement. Lastly, limited territorial sovereignty reflects the rights to use the waters of a transboundary river reasonably, with the acknowledgement that no negative impact or harm should be caused to any other riparian state. In 1970 the International Law Commission (ILC) of the United Nations endeavored to create a draft "Codification of the Law on Water Courses for Purposes Other than Navigation," a task taking 21 years to complete.<sup>39</sup> The U.N. General Assembly adopted the ILC draft articles in 1997, identifying them as "The Convention on Law of the Non-Navigational Uses of International Watercourses" and the concept of limited territorial sovereignty was included under two Articles, Article 5: Equitable and reasonable utilization and participation, and Article 7: Obligation not to cause significant harm.<sup>40</sup> It is interesting to note that in 1997, 103 nations including Syria had signed the ILC 1994 draft but Turkey had not. Turkey objected to Article 7 and "it is certain that this provision would be used as a weapon by Syria or Iraq in the event of declining water supply or a deterioration in water quality."<sup>41</sup> Underlying all aspects of international water law is the basic dilemma of the inability on the part of the U.N. or any other legal body to enforce the written law, even when countries adopt the principles. Nevertheless, international water law provides the structure and point of departure from which dialogue can start, an important beginning to resolution of transboundary water conflict between Turkey, Syria and Iraq.

## **HEGEMON RISING**

As the upstream riparian in the Tigris-Euphrates basin, Turkey has certainly always held a position of power among the three main riparians. A number of other factors unfolding over the past ten years, however, have contributed to Turkey's position as a rising hegemon, fueling the fires of regional instability and tension among its neighbors. In the post-Cold War environment Turkey has continued with high levels of defense spending, increasing its defense budget from \$3.13 billion in 1985 to \$5.4 billion in 1995, while other NATO members have downsized forces and decreased defense

budgets.<sup>42</sup> In fact, Turkey has the second largest standing military force in NATO with 639,000 and deploys the Second Army to the southeast portion of the country to guard the Hatay Province and the GAP.<sup>43</sup> Turkey has developed stronger ties with Israel, signing a military training and education agreement in 1996 and publicly claiming to share the same strategic threat.<sup>44</sup> Turkish national military strategy has also changed in that it now considers forward engagement appropriate and “will seek to meet threats to Turkey beyond its sovereign territories.”<sup>45</sup> Turkey holds a decisive military advantage over both Syria and Iraq, and although Iraq has been rebuilding its forces since its defeat in the 1991 Gulf War, Turkey is the hegemonic power in the region. When applied to the predictability of conflict or cooperation over shared water resources, asymmetric power is a determining factor in that the riparian with the greater power has greater ability to control the situation, an aspect of conflict that will be explored in the following section.

## THE POWER MATRIX

A matrix utilizing three criteria has been developed by Naff (adapted from Frey, 1993) as a means of helping to predict conflict or cooperation in shared water resources.<sup>46</sup> The three criteria include 1) need for water, and this “reflects the motivations and perceptions of riparian actors and directs them toward cooperation or strife”, 2) riparian position, which regards the upstream riparian position as most advantageous, and 3) projection of power, the most important factor.<sup>47</sup> Each factor is evaluated on a scale of 1 to 5, with 5 being the highest power value, with the exception of military power, which is rated on a scale of 1 to 10. The three factors are combined and the highest total in each basin is indicative of the individual riparians relative strength. The following three propositions are then considered when evaluating the potential for water-based conflict:

- The greatest potential for conflict exists when a lower riparian is a more powerful actor than the upper water-controlling riparian and perceives its need to be deliberately frustrated.
- When an uppermost riparian is the most powerful actor in an international basin, that disparity (or asymmetry) of power inhibits conflict potential.
- When relative power symmetry coexists in a basin with asymmetry in interest and position, there will be a moderate but consistent potential for conflict.<sup>48</sup>

**TABLE 3: Model for Determining Relative Power and Conflict Potential in Major Middle East River Basins<sup>49</sup>**

		Interest/ Need	Power	Riparian Position	Total
Jordan Basin	Israel	5	9	5	19
	Jordan	5	2	2	9
	Syria	3	3	2	8
	Lebanon	1	0.5	2	3.5
Euphrates Basin	Turkey	5	8	5	18
	Syria	5	3	3	11
	Iraq	4	2	1	7
Nile Basin	Egypt	5	7	1	13
	Sudan	4	1.5	4	9.5
	Ethiopia	3	0.5	4	7.5

With a matrix score of 18 Turkey is established as holding the relative power position over Syria and Iraq. Further, Turkey is the hegemonic power in the region. Thus, as the upstream riparian and factoring the second proposition as seen above, one concludes the potential for conflict in the region to be low.

#### ARMED CONFLICT OR COOPERATION

The possibility of Turkey substantially diminishing the flow of water in both the Tigris and Euphrates Rivers via the Southeastern Anatolia Project and, as a result, fomenting armed conflict in the basin region within the next ten years, is highly unlikely in view of the above. Diminished water availability is a distinct reality for a number of reasons including significant population growth, but the GAP should not reduce water flow so significantly as to incite war. On the contrary, the GAP has actually been beneficial to the downstream riparians for

Although Turkey was motivated by its own interests, the construction of huge storage dams in the country has had a positive effect on Turkey's downstream neighbours. For instance, during the 1988-9 water year, which was the driest of the last 50 years, the deficiency in the natural flow was compensated by water from the Keban and Karakaya reservoirs protecting Syria and Iraq from the dire consequences of the drought. Similarly, in the years of plenty, these reservoirs regulate the flow and protect the downstream countries from destructive floods. This is what Iraq was trying to achieve in 1946, and was ready to pay for, when it

signed the Treaty of Friendship and Good Neighbourly Relations with Turkey.<sup>50</sup>

It is also highly improbable that any type of alliance or partnership will form between Syria and Iraq, thereby eliminating any possibility of a combined military force to combat the NATO allied Turkish army. Intense political and ethnic tensions will likely continue, but a growing need for cooperation over water resources will obviate any propensity toward armed conflict over water resources alone. According to Naff “all the key actors, at least in the Jordan Basin and very probably in the Euphrates and Nile basins as well, finally appear to be serious about preferring negotiation to conflict.”<sup>51</sup> Another study found “the struggle to survive and prosper in this mostly semiarid region, combined with the altered geopolitical situation in the Middle East in the post-Cold War era, may some day persuade or compel the riparian states to cooperatively develop and share the multiple-use bounty that their transboundary water resources can help produce.”<sup>52</sup> Dolatyar and Gray indicate that Turkey, Syria and Iraq “have been engaged in a continuous, active, and critical dialogue and technical consultations since the early 1960s. This progressive process has made the riparian states more creative, and by opening up the possibilities for more understanding, it has contributed to a higher state of cooperation among them.”<sup>53</sup> Waterbury indicates that regardless of “how acute the crises that may emerge in the coming years over water supply in the Middle East, armed conflict is not likely to be an outcome.”<sup>54</sup> Cooperation, rather than armed conflict, appears to be in the offing.

## **U.S. NATIONAL SECURITY STRATEGY**

The U.S. maintains a steadfast strategic interest in the Middle East. Our current national security strategy clearly stipulates that the U.S. “has enduring interests in pursuing a just, lasting and comprehensive Middle East peace, ensuring the security and well-being of Israel, helping our Arab friends provide for their security, and maintaining the free flow of oil.”<sup>55</sup> Seventy percent of the world’s oil is found in the Middle East, therefore, of paramount interest to the U.S. is assurance of an unhindered flow of oil from the Persian Gulf to the world market. This concern is followed closely by a number of other significant U.S. strategic interests in the region including the need for inhibiting the proliferation of weapons of mass destruction, isolating rogue regimes, maintaining open air and sea lines of communication, protecting U.S. citizens and property,

promoting human rights and democratic systems of government, and maintaining an overall balance favorable to U.S. interests.<sup>56</sup>

Direct U.S. diplomatic involvement in pursuit of regional stability is one of the primary means through which the above interests are advanced. Regarding Arab/Israeli relations specifically, U.S. efforts have helped to establish multilateral working groups for, among other issues, water and the environment, which are designed to promote regional cooperation in transboundary environmental issues.<sup>57</sup> Currently, the U.S. is not taking an active role in the Southeastern Anatolia Project, a reasonable strategy given the greater focus on the Middle East Peace process and the fact that armed conflict in the Euphrates-Tigris basin within the next ten years is unlikely. Nevertheless, Turkish influence on stability in the region is important to U.S. national security interests, as well as to the security interests of NATO. Turkey's growing cooperative relationship with Israel has implications for the Middle East peace process as will be discussed later. Further, armed with the knowledge that population growth in the region is anticipated to double within the next 25 years, and knowing that water demands are already stressing available resources, U.S. strategists must recognize that Turkey's greater control of water flow along both the Tigris and Euphrates Rivers increases the likelihood of more aggressive and desperate actions on the part of the downstream riparians to obtain water for their survival. Indeed, confrontation may only have been delayed as a result of diminished Iraqi military strength following the Gulf War.<sup>58</sup> The U.S. should then, in the near term, consider a more actively involved approach toward efforts designed to promote greater water use efficiency and enhance transboundary water cooperation between Turkey, Syria and Iraq, recommendations for which are provided in the following section.

## **RECOMMENDATIONS**

There are numerous courses of action to be considered for conflict resolution and/or prevention in the Tigris-Euphrates basin. Diplomacy is always paramount and the U.S. State Department should remain active, offering assistance when and where possible in helping to shape regional stability. As discussed earlier in this paper, the issue of reliable data is a point of contention between the three main riparians, yet critical to forming a basis for cooperative agreement. Since most discussions over shared water occur at the leadership level of each country, with politics and power impeding the dialogue, cooperation could be approached instead in a joint institutional

manner, among scientists and water experts who would form an alliance for data compilation based on mutual concern for the people of the region. Unburdened by political or ethnic concerns a “central information bureau under the international auspices would be a helpful first step in stimulating cooperation.”<sup>59</sup> The U.S. could assist through technology by providing information on rates of water flow and usage, as well as by offering solutions for greater efficiency in irrigation methods.<sup>60</sup> It would also behoove the U.S. to establish a single coordinating head with oversight beyond the geographic boundaries of U.S. European Command and U.S. Central Command, one who would maintain a view of the entire region and be prepared to provide recommendations for U.S. strategic planning.<sup>61</sup> As demonstrated during the Syrian and Iraqi conflict in 1975, third party participation can also be effective in resolving water disputes.

A more in depth look at the ongoing dispute between secularists and Islamists in Turkish government can help to effectively shape U.S. foreign policy and understanding of Turkey as a U.S. and NATO ally. Although considered a Republican Parliamentary Democracy, use of the term democracy in connection with the Turkish governing authority is a misnomer.<sup>62</sup> Turkey maintains a stable, secular government, though one in which the military effectively acts as a watchdog, making sure that the principles of Ataturkism are upheld. In particular, the secular military insists on regimes that will continue with western alliances and modernization, and has staged coups when too great an Islamic influence has entered the political arena. It is a fact that contrary to Western-style democracy, the military actually plays a permanent role in Turkish politics. Therefore, Turkey should not be considered a democracy in its truest sense, i.e. a civilian dominated government, by and for the people with majority rule, but rather it should be understood that Turkish military leaders will maintain an influential position from which they can shape the country’s political direction. U.S. strategists must recognize that these circumstances will form the backdrop in any negotiations process.

The closer Turkish-Israeli ties that have developed in recent years should also be considered for their potential regional instability implications. While the U.S. views the 1996 military training and education agreement between Turkey and Israel as beneficial in that it strengthens two pro-Western allies in the region, the Arab world in all likelihood sees this action as forming a military bloc. Given the longstanding conflict between Israel and Syria, the Turkish-Israeli alliance may not only impede the Middle East peace

process, but also potentially further the divide between Turkey and Syria and hinder their hydro-political negotiations as well.

Conflict over adequate clean water supply throughout the world is of growing concern. For the countries of the Middle East it is a significant issue today, and will only become more pronounced in the future. Turkey is a regional hegemonic power, growing in military strength and political influence. The effect these key factors may have on U.S.-Turkish diplomatic and political relations, hydro-political negotiations in the Euphrates-Tigris basin region, and the Middle East peace process remains to be seen and certainly bears careful scrutiny.

WORD COUNT = 5,607

## ENDNOTES

<sup>1</sup>Robert Fisk, "60 Years of Ethnic Cleansing in Hatay," 27 July 1998; available from <[http://www.geocities.com/discover\\_turkey/Hatay.htm](http://www.geocities.com/discover_turkey/Hatay.htm)>; Internet; accessed 18 December 2000.

<sup>2</sup>Frederick M. Lorenz and Edward J. Erickson, The Euphrates Triangle: Security Implications of the Southeastern Anatolia Project (Washington, DC: National Defense University Press, 1999), 8.

<sup>3</sup>Ibid., 15.

<sup>4</sup>Mostafa Dolatyar and Tim S. Gray, Water Politics in the Middle East (New York: St Martin's Press, Inc., 2000), 134.

<sup>5</sup>Lorenz and Erickson, 15.

<sup>6</sup>Yahia Bakour and John Kolars, "The Arab Mashrek: Hydrologic History, Problems and Perspectives," in Water in the Arab World: Perspectives and Prognosis, ed. Peter Rogers and Peter Lydon (Boston: Harvard University Press, 1994), 128.

<sup>7</sup>John Waterbury, "Transboundary Water and the Challenge of International Cooperation in the Middle East," in Water in the Arab World: Perspectives and Prognosis, ed. Peter Rogers and Peter Lydon (Boston: Harvard University Press, 1994), 56.

<sup>8</sup>Bakour and Kolars, 127.

<sup>9</sup>Arun P. Elhance, Hydropolitics in the Third World (Washington, D.C.: United States Institute of Peace Press, Inc., 2000), 124.

<sup>10</sup>John F. Kolars and William A. Mitchell, The Euphrates River and the Southeast Anatolia Development Project (Carbondale, IL: Southern Illinois University Press, 1991), 6.

<sup>11</sup>Elhance, 127.

<sup>12</sup>Thomas Naff and Ruth C. Matson, Water in the Middle East: Conflict or Cooperation? (Boulder: Westview Press, Inc., 1984), 83.

<sup>13</sup>Dolatyar and Gray, 120.

<sup>14</sup>Ibid., 121.

<sup>15</sup>Naff and Matson, 83-84.

<sup>16</sup>Elhance, 127.

<sup>17</sup>Kolars and Mitchell, 104-105.

<sup>18</sup>Kolars and Mitchell, 7.

<sup>19</sup>Ibid.

<sup>20</sup>Dolatyar and Gray, 121.

<sup>21</sup>Ibid.

<sup>22</sup>Bakour and Kolars, 129.

<sup>23</sup>Ibid., 128.

<sup>24</sup>Lorenz and Erickson, 6.

<sup>25</sup>History of Southeastern Anatolia Project (GAP) (Ankara: Republic of Turkey Prime Ministry Publication, 1999), 2.

<sup>26</sup>Lorenz and Erickson, 6.

<sup>27</sup>Elhance, 149.

<sup>28</sup>Ibid., 150.

<sup>29</sup>Peter H. Gleick, "Water and Conflict: Fresh Water Resources and International Security," International Security 18 (Summer 1993): 89.

<sup>30</sup>Lorenz and Erickson, 14.

<sup>31</sup>Thomas Naff, "Conflict and Water Use in the Middle East," in Water in the Arab World: Perspectives and Prognosis, ed. Peter Rogers and Peter Lydon (Boston: Harvard University Press, 1994), 255.

<sup>32</sup>Ibid., 253.

<sup>33</sup>Lorenz and Erickson, 4.

<sup>34</sup>Naff, 255.

<sup>35</sup>Ibid., 258.

<sup>36</sup>Waterbury, 45.

<sup>37</sup>Naff, 260.

<sup>38</sup>Ibid., 262.

<sup>39</sup>Lorenz and Erickson, 30.

<sup>40</sup>Ibid.

<sup>41</sup>Ibid., 33.

<sup>42</sup>Ibid., 18.

<sup>43</sup>Ibid., 17.

<sup>44</sup>Michael Robert Hickok, "Hegemon Rising: The Gap Between Turkish Strategy and Military Modernization," Parameters 30 (Summer 2000): 109.

<sup>45</sup>Ibid., 110.

<sup>46</sup>Naff, 280.

<sup>47</sup>Ibid., 278.

<sup>48</sup>Ibid., 280-281.

<sup>49</sup>Ibid., 280.

<sup>50</sup>Dolatyar and Gray, 140.

<sup>51</sup>Naff, 283.

<sup>52</sup>Elhance, 124.

<sup>53</sup>Dolatyar and Gray, 160.

<sup>54</sup>Waterbury, 45.

<sup>55</sup>William J. Clinton, A National Security Strategy for a New Century (Washington, D.C.: The White House, December 1999), 42.

<sup>56</sup>Ibid.

<sup>57</sup>Ibid.

<sup>58</sup>Dr. Thomas R. Stauffer, interview by author, 12 February 2001, Carlisle, PA.

<sup>59</sup>Naff and Matson, 197.

<sup>60</sup>Lorenz and Erickson, 51.

<sup>61</sup>Ibid., 52.

<sup>62</sup>Dr. Thomas R. Stauffer, interview by author, 12 February 2001, Carlisle, PA.



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